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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
02940313pa

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Application Number 10/677,735	Filed October 3, 2003
First Named Inventor McHugh	
Art Unit 1713	Examiner Hu

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☑ attorney or agent of record.
Registration number 32,635

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 ____________

Signature

Michael E. Whitham
Typed or printed name

703-787-9400
Telephone number

September 21, 2006
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☑ *Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Tradeamrk Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Mark McHugh Confirmation No. 4931

Serial No. 10/677,735 Group Art Unit: 1713

Filed October 3, 2003 Examiner Hu

For HOMOGENOUS COMPOSITIONS OF POLYMERS AND CRYSTALLINE SOLIDS OR CROSS-LINKING AGENTS AND METHODS OF MAKING THE SAME

Mail Stop AF
Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

ATTACHMENT TO PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir:

This Pre-Appeal Brief Request for Review is being concurrently filed with a Notice of Appeal. Please charge any fees required to satisfy the fees due for the Notice of Appeal or to gain entry and consideration of this Pre-Appeal Brief Request for Review, the Commissioner is authorized to charge Attorney's Deposit Account 50-2041 (Whitham, Curtis, Christofferson & Cook, P.C.).

The Invention

The invention is directed to a process for producing homogenous blends of chemical agents and polymers where the final product is a free flowing powder comprised of particles which include the chemical agent in crystalline form associated with a polymer (see "agitating or masticating" step in claim 1). This is accomplished by combining a polymer with at least one functional group on its backbone with a chemical agent which associates with the functional group in the presence of a supercritical fluid (e.g., supercritical carbon dioxide). The chemical agent is one that forms a crystalline solid (see claim 1). When the functional groups on the chemical agent and polymer associate with one another a blend is produced (see permitting step of claim 1). The blend is agitated or masticated to produce a free flowing powered comprised of particles include the chemical agent in crystalline form associated with the polymer, and the supercritical fluid is removed.

With particular reference to Tables 2 and 3 and the text on pages 13 and 14 of the patent application, it is shown that free flowing powders are created when the chemical agent associates with the polymer, but not when they do not associate. Thus, the invention is not merely grinding up to agents. The invention is a process by which a homogenous blend in the form of a free flowing powder with crystalline chemical agent associate with polymer is produced. This powder can then be used in molding and other operations to produce parts with an homogenous blend of the materials. Figure 1 of the application illustrates the process. In operation, the chemical agent becomes associated with the polymer by interaction of the functional groups on the two moieties in the presence of supercritical fluid and pressure. When in its crystalline form, the chemical agent with the associated polymer can be fractured by agitation or mastication. The result is a fine powder with bits of chemical agent associated with polymer.

Errors and Omissions

1. The Examiner is of the position that Claim 11 does not further limit claim 1.

This is simply wrong. Claim 11 further limits claim 1 by requiring the two steps to be performed simultaneously or at overlapping times. While it is clear that the agitating and masticating must be performed on a blend which is formed in the permitting step, it should be recognized that the blend is formed from chemical agent and polymer, and that the blend does not require all of the chemical agent to be associated with all of the polymer. Rather, as some of the chemical agent forms a blend with some of the polymer, that blend can be agitated or masticated to break up the blend into particles, while more blend is being formed from more chemical agent and more polymer.

2. The Examiner is of the position that claim 1 requires the transitional phrase "comprising the sequential steps of".

This is simply wrong. "Comprising the steps of" is well recognized and accepted language under U.S. Patent law. As noted above, the "permitting" and "agitating or masticating" steps can be performed in sequence or simultaneously, thus a requirement of reciting "sequential steps" is inappropriate. Further, claim 1 does require some degree of "order" in that the separating step must be performed after the permitting step. Comments in the Advisory Action (see the text at "Second") suggest that the Examiner is assigning a criticality to the order of steps which is not found in the application. It should be recognized that functional groups of chemical agent and polymer can become associated while agitation or mastication is occurring (many chemical reactions occur during mixing).

3. The Examiner has rejected claims 1-29 and 31 as being anticipated by or obvious over U.S. Patent 5,766,522 to Daly or U.S. Patent 5,548,004 to Mandel.

The rejection under 35 U.S.C. 102(b) is simply wrong by the Examiner's own omission. The Examiner has admitted that not every element can be found in the prior art references. For example, in the sentence bridging pages 7 and 8 of the office action, the Examiner states Mandel may have applied a similar agitation device, and in the second to last sentence in paragraph 12 on page 8 of the office action, the Examiner states agitating or masticating may be routinely needed by each of Daly and Mandel. In short, neither Daly nor Mandel teach these steps.

The rejection under 35 U.S.C. 103 is also simply wrong since neither Daly nor Mandel show or suggest a process by which a free flowing powder comprised of particles including chemical agent in crystalline form where the chemical agent is associated with polymer is produced as is required in claim 1. Specifically, Mandel pertains to preparing coating materials, and as the Examiner has noted in the office action of August 4, 2006, Mandel at most shows working up the polymerization product and does not show formation of free flowing powder which includes the chemical agent associated with the polymer. Daly describes production of a powder coating, not a free flowing powder which includes a chemical agent in crystalline form associated with a polymer. At most, Mandel and Daly show examples of powder coatings generally, and do not show a free flowing powder where the particles include chemical agent in crystalline form associated with polymer. No crystallinity of a chemical agent is discussed in

Mandel or Daly. Crystallinity is not a matter of "degree" as suggested by the Examiner. By having the blend have crystalline chemical agent associated with polymer, the blend is able to be broken up by agitation or mastication to form particles of crystalline chemical agent with polymer associated therewith (breaking the blend apart can occur very easily by fracturing the crystals).

In short,

- Neither reference shows or suggests a chemical agent that assumes a crystalline form.
- Neither reference teaches creation of a free flowing powder which includes particles of crystalline chemical agent associated with polymer.

In view of this, none of the claims are anticipated or obvious over either Mandel or Daly.

Conclusion

The objection and the rejection under 35 U.S.C. 112, second paragraph are simply wrong under the Patent Law.

The claimed process produces a valuable material-a free flowing powder of crystalline chemical agent associated with polymer-which can be molded, extruded, or processed by other means to produce articles which have uniform attributes. Neither Mandel nor Daly show or suggest making such a material, and the processes of Mandel and Daly do not in fact make such a material. Thus, the rejections under 35 U.S.C. 102 and 103 are improper.

In view of the above, it is requested that the position of the Examiner be reviewed, that the rejections be withdrawn, and that the application be passed to issue.

Respectfully submitted,

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